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ABSTRACT

A review of literature from the early sixties to the present provides an understanding of problems posed by potential dropouts (disadvantaged learners) and some potential solutions to those problems. The first section describes who potential dropouts are and why they are disadvantaged; how they can be identified; some remedial projects already undertaken; and some social impacts of dropping out of school. The second section reviews alternative educational strategies that have been tried, discussing relative advantages of integrated settings, segregated settings, and related and mediating variables (including teachers, resource rooms, individualized instruction, technological enhancement, counseling, facilities, programs, resources, and evaluation) that can affect the success of segregated or integrated classrooms. The third section draws conclusions from the literature: (1) disadvantages of potential dropouts stem from poor self-image, pessimism, and lack of sense of purpose or positive motivation; (2) disadvantaged students are readily identifiable: are over-age for their grade, believe they are failures, feel rejected and alienated, miss much school because of illness, are behind in basic subjects, and are marking time and waiting to drop out; (3) integrating such students into the regular classroom is preferred, which requires superior teachers, new and meaningful programs, individualized instruction, and new strategies for enhancing self-image. (CM/MH)

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DISADVANTAGED LEARNERS: THE NATURE OF THE PROBLEM AND SOME POTENTIAL SOLUTIONS

The preliminary findings of a joint study conducted in Zone 3 by Alberta Education and Alberta Social Services and Community Health suggests that seven to eight percent of the students enrolled in junior high schools may be potential dropouts. Across the province this represents 7,700 to 8,800 students between the ages of 12 and 15 years. Of these junior high school students, 2,200 to 3,300 actually drop out each year. Some are known to obtain work permits and find employment in low-skill jobs. Many more (especially girls) remain at home. Still others end up in correctional institutions.

Enrolment patterns suggest that many more of these identified potential dropouts become actual dropouts shortly after entering high school or on reaching their sixteenth birthday.

To provide a clear understanding of both the problems posed by potential dropouts and some of the potential solutions to these problems, a literature review was undertaken. Because there was such a large body of literature available dating from the early sixties, mostly secondary sources have been used in this paper.

The reviewed literature provides (in the first section) a reasonably clear picture of: who these potential dropouts (disadvantaged learners) are and why they are disadvantaged; how they can be identified; some remedial projects undertaken to date; and some of the social impacts of dropping out of school. The second section is devoted to an examination of alternative educational strategies that have been tried and the third section is devoted to overall conclusions.

DISADVANTAGED LEARNERS: AN OVERVIEW OF THE PROBLEM AND SOME SOLUTION STRATEGIES

Disadvantaged Learners--Who Are They?

Ornstein (1966:154-163) describes several forms of deprivation that may alter a students' behavior. Self deprivation is characterized by students who lack a sense of self-esteem, self-praise, and self-importance. They may have low or unrealistic aspirations. Social deprivation is a term applied to those students who are often uncommitted to the larger society and its values. Environmental deprivation describes cases where individuals are crammed into cramped and overcrowded spaces which lack adequate heat, refrigeration and sanitary facilities. Worse, perhaps, they lack private space. Parental deprivation occurs when one or both parents are unavailable or unable to adequately fill their proper role because of problems such as divorce, alcoholism or desertion.

Illness, malnutrition, and poor health practices combine into a classification referred to as hygienic deprivation. Racial deprivation includes all forms of disadvantage suffered as a result of discrimination and prejudice against minorities--especially non-white. Experience deprivation stems from a lack of information and awareness of the world beyond an individual's doorstep. Education deprivation describes cases in which individuals do not have the requisite experiences for learning basic skills.

Frost and Hawkes (1966:3) cite an element which might be described as economic deprivation. They have found that the rate of dropout is 1 in 3 where family income is under $3,000 and where parents failed to complete high school. For families with incomes over $7,000 and where parents had completed high school, the dropout rates were only 1 in 17. Frost and Hawkes go on to identify some of the complications arising from poverty, a problem they believe is universal. (1) Children of the poor suffer many cultural disadvantages which affect intellectual development and inferfere with social development. (2) The disadvantaged child is retarded before entering school (i.e. he has not learned middle-class concepts). (4) An enriched environment positively affects achievement. (5) Early sensory stimulation is essential for development of brain functions. (6) Lack of environmental stimulation results in slow cognitive, locomotor, and social development. (7) Children move through an invariant developmental sequence at a highly variant rate. (8) Efficient intellectual development is contingent upon properly sequenced development.

Charnofsky (1971:45) cites a number of observations which (taken together) provide a description of the disadvantaged learner. Included are:

> ...(1) Lack of future orientation of the poor; (2) hostility towards those who have made it; (3) suspicion and resentment of outside influence; (4) a consequent trusting to 'chance', 'luck', or 'fate'; (5) an apathetic approach to problems; (6) a futility about where everything is going and what everything means; and (7) childlike dependency on those who are gifted or capable or affluent or powerful.

Laycock and Findlay (1970:13) recommended that children be considered emotionally disturbed (or disadvantaged) if they exhibit such symptoms as: inability to have effective peer relationships; inappropriate behaviour; a general mood of unhappiness or depression; difficulty facing reality; difficulty with learning; or, a tendency to develop physical symptoms or to fear personal or school problems.

Havighurst (1966:18) describes the socially disadvantaged learner as one who fails to develop his vocabulary because, in

relation to a normal learner, he experiences family conversation that fails to answer questions with well developed answers. As a result of these shortcomings, the disadvantaged often have poor auditory and visual discrimination and inferior judgement of time, number and other basic concepts.

Black (1966:47-48) takes a position similar to Havighurst's in discussing learning patterns of disadvantaged students. (1) Disadvantaged students learn more readily by inductive (specific to general) than by deductive (general to specific) methods. This may be the result of low self-esteem --they do not trust their own judgement. (2) They are unaccustomed to "insight building"--moving from observations to conclusions. (3) They are frequently symbolically deprived. Wild imaginations (frequently encouraged in advantaged children) are often discouraged and even punished as lying. (4) Disadvantaged learners rely on concrete examples of cases being studied. (5) They have short attention spans--particularly if they find the topic uninteresting.

Four additional factors are involved in an assessment of readiness for instruction. (1) Disadvantaged learners have had little experience at receiving approval or success. Approval is frequently not interpreted as a motivator. (2) Disadvantaged students have little experience beyond their home environment. (3) They are frequently unaware of the "ground rules" for success in school. (4) They do not perceive adults as people they can go to for answers and assistance.

Fantani and Weinstein (1968:13) describe "a cycle of despair" that describes the treadmill on which disadvantaged children are compelled to run. Low family income leads to low rental accomodation. Because of a dearth of books and magazines, children are ill prepared for school. As a result of being ill prepared, the schools do not meet their needs. They experience low achievement and alienation sets in as does the beginning of a poor self-concept. The poor motivation provided by the poor self-concept leads to dropping out of school. The individual finds only low-paying jobs (or unemployment) with the result that he is compelled to initiate a second generation of children who have no better prospects than he had.

How Are They to be Identified?

Bloom (1965:34-36) believes that in adolescence the individual is trying to create a new identity. If he regards higher education as appropriate, the transition is easy. If not, he "marks time" until he can quit--drop out. There are some tell-tale signs that this may occur. By grade 9, the individual lags by 3-4 years in reading and mathematics. Problem solving and abstract thinking abilities are low.

There is little participation in extra-curricular activities. The individual has no vocational goals and little motivation. Hostility and rebellion may be evident. Often the individual turns completely to a peer group for excitement and a sense of belonging.

Kelley (1966:61-62) identifies "seeds of dropouts" that can often be detected as early as the third grade. The future dropout: is over-age for his grade; has already been told he is a failure; already feels rejected and alienated; misses much school due to illness; falls behind in basic subjects; and, generally comes from a deprived home.

What Has Been Done to Date in This Country and Abroad?

Projects to help disadvantaged learners in the elementary grades have been operating in Alberta since 1973. An evaluation of these projects concluded that "the EOF (elementary) program has been a success" (Mackay, 1975:70). A more recent study concluded that projects undertaken to compensate for social, economic and cultural deprivation (the EOF Compensatory Component) were partially successful. The evidence indicated that these projects were bringing about improvements in pupil performance in the basic skill areas of reading language and mathematics. At the same time there was no appreciable improvement in student attitudes (Alberta Evaluation Research Associates Limited, 1976:186).

Other findings of the studies of Alberta EOF projects pointed to the need for preliminary planning. As an example, Mackay (1975:70) found evidence that projects were" not based on research knowledge about teaching or learning or pupil needs".

It is also important to recognize that these study findings all relate to specific project objectives. There are no completed longitudinal studies and therefore no evidence that these projects produce lasting effects on students or student achievement.

Hodges and Sheehan (1978:4-19) provide an overview and assessment of more than 30 years of early childhood education history in the United States. The early sixties marked the beginning of an era of new programming aimed at helping many children with disadvantages. These programs designed under the auspices of Head Start and Compensatory Education legislation attempted to meet some or all of the following goals: improve the child's physical health and abilities; foster the emotional and social development of the child by encouraging self-confidence, spontaneity, curiosity, and self-discipline; improve the child's mental processes and conceptual and verbal skills; establish patterns of expectations that create a climate of confidence for future learner's efforts; improve

the quality of intrafamily and interpersonal relationships of the child; develop attitudes of social responsibility; and, increase a sense of dignity and self worth.

On the basis of ten years of experimentation in the United States, Hodges and Sheehan report some sobering results. (1) No significant picture of success emerged from the early childhood education efforts of the 1960's when students were followed through to the end of elementary school. In most cases impressive initial gains of the varied programs were eroded a short time after the child left the program--there were few lasting effects. (There are no longitudinal studies of the Alberta ECS program and hence no Alberta evidence supporting or rejecting this conclusion). (2) The most successful programs were characterized by: clear program objectives, small group instruction, parent involvement, systematic teacher training, relevant instruction, and high expectations. Fedigan's (1979:33,36) review of the literature tends to confirm this point. He has found evidence that direct instructional approaches are superior in upgrading academic skills to indirect or inquiry approaches, particularly for young disadvantaged children. (3) The definition of disadvantaged was modified to include five standards; poverty, minority group membership, lower social class, chronic crisis, and unequal access to resources. Disadvantaged students may meet some or all of the standards.

Bar-Tal (1978:259-271) has examined some achievement related behaviors in terms of attribution theory. (Attribution theory deals with what people believe to be cause-effect relationships.) On the basis of his work, he says:

> ...As a conclusion, it was suggested that it would be desirable to change students' attributions in the direction of emphasizing ability and effort as causes for success and lack of effort as the cause of failure. These causal perceptions can maximize the academic performance of students.

Social Impacts of "Drop-Outs" and Undereducated Youth

Jones (1977:411-416) documents the social impacts of youth who drop out of school and enter the work force as undereducated. Because those who drop out are alienated as well as undereducated there are two kinds of cost to be considered: the costs of alienation and the costs of inadequate education.

The costs incurred by those who are alienated are varied. (1) Mail is no longer safe and secure--boxes are burglarized and checks and valuables are stolen. (2) Properties are vandalized. (3) Establishments are victims of extortion, robbery and burglary. (4) Robbery and rape are so common many persons

fear to walk the streets day or night. (5) Homes are invaded and ransacked and the occupants beaten, kidnapped or killed. The list goes on.

The costs of inadequate education include the costs of lost productivity and unemployment plus the welfare costs of maintaining the unemployed. On the basis of calculations presented by Jones it appears that the costs resulting from an inadequate education far outweight the costs that would have been incurrred in providing an adequate education. His position is that development of educational programs to keep potential dropouts in school is an extremely good social investment--there may be up to a six-fold return on these investments.

Summary

The common denominator among deprived or disadvantaged students appears to be a shattered self-image, little or no sense of purpose, and a poor understanding of what causes failure or success. As a result they tend to be pessimistic and poorly motivated. The most readily observable symptom of this malaise is the individual's inability to function adequately either in establishing wholesome interpersonal relationships or in scholastic achievements. As a child the individual is a misfit in school. As an adult he is a misfit in society. By virtue of a variety of forces, these people invariably gravitate into low paying jobs or towards welfare. Some find their way into correctional institutions. Far from being productive society members, they are generally unproductive or worse, counterproductive.

There is evidence that money invested in meeting the educational needs of these people in school is wisely spent. The social return on these investments may be as much as six-fold.

After a great deal of research into ways and means of meeting the needs of disadvantaged youth, the conclusion is that those programs which offer individualized instruction, good teacher models, and self-image enhancement have the best prospects of success.

DISADVANTAGED STUDENTS: HOW CAN THEY BE HELPED?

Disadvantaged students seldom find that their needs are met in the classroom. Because what they need is not what they receive in their classrooms, they may become alienated and disruptive, frequently demanding the individualized attention of the teacher. The net result is that these students are all too often labeled in such a way that they are segregatable and thus removed from the regular classroom.

There are really two ways of dealing with disadvantaged students. Each has its rationale. One way is to integrate the disadvantaged students into the mainstream of education and avoid labeling. The other way is to label the students and place them in a segregated setting. Depending on the nature of the behavior of the disadvantaged student, segregation may take place within the overall school setting, or in the more severe cases the student may be placed in correctional institutions.

The purpose of this section is to discuss the relative advantages of integrated settings, segregated settings, and a number of related and mediating variables.

Integrated vs. Segregated Approaches

Several authors have reviewed the experiences of a variety of programs and offer opinions and recommended guidelines for programs for the disadvantaged.

Frazier (1968:23-26) identifies several "things we have learned". (1) Before substantial gains can be made, stereotyped images and expectations must be dropped. (2) Doing "more of the same but harder" will scarcely dent the problem. (3) Keeping children in school is not enough. Programs must be meaningful to students. (4) Facilities provided for disadvantaged students should be comparable to, or better than, regular facilities. (5) Prevention is better than remediation. (6) Administrative solutions are not generally effective. The curriculum must be the primary focus. (7) The school staff must attempt to bridge the gulf between the school (and all it represents) and the world of the disadvantaged student. (8) When staffing programs for disadvantaged students consider the following: select well-trained teachers with good instructional skills, reduce pupil-teacher ratios, use male teachers (as role models), and use a variety of supporting staff.

Frost and Hawkes (1966:8-10) also offer some recommended programming considerations. (1) Time should be made available for studying and diagnosing the student. (2) The basic needs of food, clothing, health and affection must be met before learning can take place. (3) Early intervention is desirable. (4) The pupil-teacher ratio must be reduced. (5) Teachers should be provided ample in-service. These teachers should be selected on the basis of excellence and a desire to work with disadvantaged children. (6) Fear of failure should be eliminated. Instruction should be individualized. (7) Appropriate materials (at the right reading levels) should be made available. (8) Resources (including parents) should be used as intensively as possible.

Kvaraceus (1970:185-201) offers seven guiding principles for program development. (1) Accept that parents of disadvantaged children want them to complete school. (2) Differentiate between regular and disadvantaged students in meaningful pedagogical terms--not in gross terms. There must be a clear specification of each student's problem or weakness or disadvantage. (3) The teacher's essential role and function is not therapeutic--it is to educate. Teachers selected for programs for the disadvantaged should be: experts in their field, role models, and honest in their interpersonal relationships. (4) Instruction should be individualized in a meaningful way. (5) Schools (and teachers) should be aware of both the overt and covert curriculum and its potential effects on disadvantaged students. (6) The school is both a social system and an educational institution. Both must work towards the same ends. (7) The school must act in an ego-building, and not an ego-destroying, capacity.

Paul (1977:12) does not see all of these things happening but rather sees educators caught in a bind trying to right "social and sometimes constitutional wrongs within the framework of educational practices".

> The situation is difficult at best. The cultural center for all children is guaranteed by social arrangement and by law to be the public school. At its center is a scandal. Schools are citizenmakers. Yet schools have been found guilty of segregating and stigmatizing the disturbed and other handicapped children, frequently under the guise of scientific practice. Some have pointed out that schools provide, in many instances, a concentration of social pathology and citizen-alien models of behavior and values.

When it comes to programming for disadvantaged students, cases can be built for both integration and segregation.

Fink (1977:105) offers support for relatively short term segregation by claiming that:

> There have been important benefits [respite, repair, renewal] to the behaviorally disordered through participation in special education.... The 'problem child' in the regular classroom, more often than not, has a 'cumulative record' of such states [tension, stress, discomfort] and has little opportunity for constructive relief from the situation in which he finds himself. For many children, the special class provides the needed respite, ...repair, ...and renewal.

Laycock and Findlay (1970:16), as does Kvaraceus (1970:185), advocate integration of disadvantaged students with regular students whenever feasible. Laycock and Findlay

recommend that where two to four moderately disturbed children are to remain in a class, the administrator should do two things: 1) select non-disturbed students who are stable and well-motivated to fill the remainder of the class, and 2) reduce the total class size to no more than 20.

A study designed to examine the most appropriate placement of handicapped students in educational programs has been completed in Calgary. In comparing integration with segregation they found the following (Study of Integration of Special Education Students into Regular Classes, 1978):

1. The handicapped child in the regular classroom achieves more both academically and socially, than when segregated from regular classes.

2. The handicapped child is not labeled as readily by teachers or peers, when integrated into the regular classroom.

3. Integration in the regular classroom, helps the handicapped child adjust to and cope with the real world.

4. The non-handicappped child improves his ability to understand and accept the individual differences of handicapped children.

5. Instruction tends to be individualized more frequently for non-handicapped children placed in integrated classrooms.

The same study identifies several disadvantages of integration.

1. The handicapped child may not have the will, attitude, or capacity to cope successfully in the regular classroom.

2. The physical integration of the handicapped child does not ensure his social integration.

3. The physical integration of the handicapped child does not ensure instructional integration; the integrated child may be isolated from regular class activities or required to perform beyond his level of ability.

4. The human, material and physical resources needed to successfully integrate the handicapped may not be provided or used.

The Alberta Special Education Study: Executive Summmary (1977:2) reports the following findings and conclusions stemm-

ing from a comparison of regular, segregated, and resource rooms. (It is assumed that many disadvantaged students might be subsumed within the categories used).

1. Academic objectives for Educable Mentally Handicapped (EMH) pupils (50-80 IQ range) tended to be best served in non-segregated classrooms or resource rooms. Non-academic objectives for this group could be achieved in either setting.

2. Learning Disabled (LD) pupils (normal IQ range but grossly underachieving in some aspects of school work) were reported to achieve as well in regular classrooms as in segregated ones, provided instruction is modified. If regular instruction is not modified, the students achieve better in segregated or partially integrated classes. For non-academic development there was no difference between regular and segregated classes.

3. When considering the academic progress of mixed classes of EMH and LD pupils, only a slight advantage existed for a resource room setting. However, this conclusion is based only on three studies.

The Alberta Special Education Study (1977:32-33) also examined the long-term effects of remediation and after finding few long-term positive effects, reported:

> The poor prognosis relative to lasting benefits from remedial instruction implies that the regular classroom teacher may be the crucial factor in improving results. At the very least, the regular teacher who receives graduates from remedial programs requires support in order to maintain the improved rate of development.

These findings are consistent with the earlier findings of Silberberg and Silberberg (1969:34-42):

> Follow-up studies almost invariably demonstrate that the beneficial effect of this remediation 'washes out' in a relatively short time after terminating remedial reading.

Still more recently Vacc (1974:90) designed a study which compared emotionally disturbed students (near normal IQ) receiving special education with a comparable group of students receiving regular instruction. Five years and eight months after first intervention, and after those receiving special education had spent at least two years back in regular classrooms, no significant differences were found between the groups. Vacc ended the study report by saying:

> In summary, it can be concluded that the data from this study support the notion that emotionally disturbed children who did not receive special class intervention are accomplishing the objectives of academic achievement, overt behavior, and social position at the same level as children who did have the advantage of a special class. Thus, the conception of placing emotionally disturbed children in special classes for rehabilitation is called into question.

Bienert (1977:128) in an Alberta study and Hodges and Sheehan (1978:4-19) report similar findings.

These conclusions are typical of the few follow-up studies of the impact of remedial programs; any initial differences favoring the project group at the end of the program disappear over time. They should not be interpreted as an indictment of remedial programs. One explanation may be that the receiving teacher(s) do not sustain the individualized remedial approach. That being the case some of the resources used for remediation may profitably be re-deployed to provide substantial continuing support for regular classroom teachers. These resources might be in the form of consultative assistance, program plans, individualized learning packages, and frequent evaluation and feedback of student progress. Assuming that a sufficient proportion of regular class teachers could be assisted in modifying the modus operandi with respect to coping with individual differences, prevention and therapy objectives (contained in most remediation projects) would be accomplished.

Mediating Variables

There are a number of variables that are believed capable of effecting the success of either segregated or integrated classrooms. Some of these variables are: teachers, resource rooms, individualized instruction, technological enhancement, resources, counselling, facilities, programs, and evaluation.

Teachers. Several authors (Frost and Hawkes, 1966:9; and Frazier, 1968:5 for example) regard teachers as one of the most crucial factors in the success of programs for the disadvantaged. Kvaraceus (1970:190-191) believes that teachers should be experts in their field, suitable as models, and honest in interpersonal relations. He says:

> There are three kinds of authenticity that are crucial for all learners, but which are particularly critical for the disadvantaged. First the teacher must be knowledgeable or expert in his field. Teachers of history must be historians, teachers of science must be scientists, teachers of mathematics must be mathematicians.... Second, teachers must serve as the liv-

> ing symbol and embodiment of his goals and his subject matter.... Third, ...the teacher must ring true in his interpersonal relationships with his students.

This ideal is in contrast to what Johnson and Nimnicht (1973:169-170) believe to be the case. They believe teachers have a poor understanding of disadvantaged students and cite four specific problem areas. (1) Teachers believe that disadvantaged students are more unmanageable than regular students. (2) Teachers attribute stereotyped behaviors to disadvantaged students. (3) Teachers may be more concerned (worried) about relationships with parents than with their disadvantaged children. (4) Teachers believe there is "someone" with the right answers. As a consequence they spend their time looking for that person rather than dealing constructively with the problem.

Resource rooms. Resource rooms are often used as an adjunct to either integrated or segregated classrooms. The Alberta Special Education Study: Executive Summary (1977:2) concluded that resource rooms were somewhat more effective than segregated classrooms for selected subgroups of disadvantaged students (i.e. those who may also be classified as EMH and LD).

Rhodes (1976:34-35) did not find any evidence to support the argument that resource rooms were more efficient than regular classrooms. He concluded that:

> ...The classroom setting is unimportant. What is important is the individualization of programs for pupils in need.

He further concluded that older students benefit as much from remediation as do younger students.

The general finding of these studies is that initial achievement gains made in resource rooms "wash out" later. That being the case, students may profit most if they are placed in resource rooms for short periods (perhaps a semester) and then carefully integrated back into their regular classroom. To do this, most regular classroom teachers would require some additional consultation and material resources.

Individualized instruction. Because students progress at highly variable rates, many authors (Frost and Hawkes, 1966:6; Kvaraceus, 1970:183; and Rhodes, 1976:35) urged some form of individualization of instruction in programs for disadvantaged students.

As one reviews the literature, it is not commitment to individualized instruction that is lacking, it is practical procedures for implementing individualized instruction that one finds missing. Of these missing practices and procedures,

the most conspicuous are record-keeping systems, testing and diagnostic systems, and information storage and retrieval systems. Current developments in technology (the widespread introduction of micro-computers in the range of $1 - 5,000) may provide some relief.

Technological enhancement. As well as in the administrative and management aspects of instruction, there may be instructional systems worth examining.

There are many computer-based instructional systems and projects that could be examined here. Two particular cases are cited.

Considerable success has been demonstrated in a number of projects using a PLATO system and a learning package called Basic Skills Learning Systems (BSLS). This package is designed to remove reading, language, and mathematic deficiencies of young adult students and raise them to approximately an eighth-grade level.

Some of these PLATO projects were capable of providing up to one grade-level increase (equivalent to 150-180 hours of regular instruction) for an investment of about 24 hours of learning time (Rizza and Walker-Hunter, 1978:12). Among specific projects they reported were:

> Adult Basic Education--The Adult Learning Center in Baltimore involved adults and the results showed a growth of 0.8 grade-levels in reading after 15 hours of instruction and 1.2 grade levels in math after 20 hours of study in BSLS. The drop-out rate was 6%.
>
> Secondary School Remedial Programs. 107 secondary students showed a significant gain in scores after using BSLS.
>
> Correctional Institutes. Significant gains in math and reading were reported at three sites selected for study.

Rizza and Walker-Hunter concluded by saying:

> The less than optimal learning situations within which the Basic Learning Skills System was used were further compounded with target populations made up of 'high risk' individuals. These participants very often had a poor self-image, had experienced failure continuously, had failed to learn in the traditional system, and had motivational problems. Taking all of of this into account, one must conclude that the Basic Skills Learning System has done more than merely produce significant achievement gains, it has succeeded where there existed a high probability of failure.

The Computer Curriculum Corporation of Palo Alto California (headed by Patrick Suppes) offers drill and practice programs in most elementary (grades 1 to 8) subjects. These have been successful in many cases. At 10 minutes of terminal time per day, estimated per pupil costs for programs and equipment rental run about $50/pupil/course/year.

Counselling

Counselling services may be divided into at least three areas: career, academic and personal. Career counselling helps a student make wise career choices. Academic counselling helps students choose programs and courses which prepare him to enter his chosen career field. Personal counselling helps a student deal with his emotions--those inner mechanisms that shape his behavior. A hallmark of the disadvantaged student is frequently a poor self-image or self-concept. Combs (1967:36-43), in speaking about human behavior, says; "We understand that human behavior is always a result of two things: one, how he sees the situation in which he is involved, and two, how he sees himself". He further asserts that self-image "has a selective effect on everything we do"--on behavior, on learning, on human adjustment (fitting into society), on intelligence, and on work.

In spite of the identified relationships between self-image and behavior, the material reviewed in the course of preparing this paper made little mention of personal counselling as a role for teachers. Kvaraceus (1970:190), one of the few who broached the subject, pointed out that:

> The teacher's essential role and function is not therapeutic, it is not to brain wash or to indoctrinate with middle-class values. The unique and essential feature of the teacher's role is to educate--to develop the cognitive processes. The school is not a hospital; it is not a jail; it is not a warehouse in which to store young people; it is not a social or recreational agency.

Contrary to the restricted role of teachers seen by Kvaraceus, it is presently the case that career and academic counselling is regarded as the role of teachers or in-school counsellors. Whether this should remain so is open to debate.

Tudor Williams of Syncrude Canada considers teachers (or in-school counsellors) to be ineffective as vocational guidance counsellors (Edmonton Journal, 20 January 1979).

> Guidance counsellors do not have sufficient information and understanding of the labor market to meet students' needs today.

This view appears to agree with student's perceptions of vocational counselling as assessed in a recent Alberta Education Study. In that study Maguire, et al, (1978,iii) found that students perceive career counselling to be at an "inadequate level".

While these observations do to some extent, call into question the whole area of career (or guidance) counselling, they offer no recommendations for dealing with the emotional problems of disadvantaged students.

The views already presented suggest that the poor self-concepts of the disadvantaged were learned at a very early age and stemmed from abuse, neglect, rejection, broken homes, alcohol- or drug-related problems, unemployment, or just chronic chaos. The emotional scars that remain from these hurts are so painful that for most students, by the time they reach adolescence, the hurts have been deeply buried at the sub-conscious level. Why? Because they are unable to deal with them--even privately. All that affirms the presence of these emotional scars are behavior patterns.

To attempt to deal with these deeply-rooted emotional problems in classrooms through transactional analysis, self-discovery groups, or in a variety of other unstructured and student-centered settings is not recommended. The disadvantaged student is too often threatened by his own inner feelings in these unstructured settings and by the criticism and judgements leveled at him by teachers and peers. Moreover, as noted earlier, the disadvantaged learner seems to respond best to structure.

The cited literature recommends that classrooms should be warm and friendly and teachers should strive to develop positive attitudes and to inspire students. Hunt (1971) contends that emotional growth occurs most easily in a relaxed atmosphere where individuals may express their feelings and where they may compare and contrast themselves with others without fear of threat or criticism.

The design of classroom environments conducive to emotional growth may be a task of in-school counsellors. Arkoff (1975:42-43) offers a description of the role of school counsellors. School counsellors: provide counselling service to elementary and secondary students; help in organizing environments so that they provide suitable climates for learning; provide consultation services to teachers and parents; and, help evaluate the interest and abilities of students and assist them in planning programs to meet their chosen goal.

In assessing the state of school counselling in British Columbia, Carr (1978:45-51) arrived at two important conclusions. (1) There is role confusion. Nobody knows what counsellors do. (2) Teacher training programs generally emphasize

subject matter skills over the helping relationship. Carr further reported that in most studies "students said they did not usually talk with a [school] counsellor about personal problems" (1978:30).

For those disadvantaged students requiring personal counselling in order to deal with emotional (behavioral) problems the most promising alternative appears to be referral to outside resources. In a U.S. survey cited by Arkoff (1975:19-20) 2,460 adults were asked, "Where do people go for professional help?". Of the 345 who had sought such help for personal problems, 42 percent went to clergymen, 29 percent to doctors, 18 percent of psychiatrists or psychologists, 16 percent to other social services, and 17 percent to others which includes parents, relatives, and friends. (Because respondents had used more than one resource, the total is not 100 percent). All of these resources should be considered as potential sources of help for the disadvantaged students.

The recommended domain of school counsellors would then appear to be in areas of career and academic counselling, student diagnostics, as a consultant to teachers in the design of learning environments conducive to emotional as well as cognitive growth, as a link between students and professional resources located externally, and as an information resource to parents.

Facilities. Facilities have been found to account for little of the variation in pupil achievement (Kvaraceus, 1970: 185.

Programs. Program quality appears to have a bearing on pupil achievement. Programs should be meaningful to the learner, more concrete than abstract (Bloom, 1965:34-36; Black, 1966:48), individualized (Frost and Hawkes, 1966:9; Rhodes, 1976:35), not just "more of the same but harder" (Frazier, 1968:23-26), and instruction should be directed rather than inquiry type (Fedigan, 1979:33,36).

Resources. Several of the authors stressed the importance of using all available resources. Among identified resources were the disadvantaged students themselves. Several references were encountered describing the Job Corps.

A program of particular interest was described by Durlak (1973:334-339). In the program he describes, ninth graders were used as tutors in lower grades for up to 50 percent of their in-school time. For these ninth graders the results appeared to be positive.

> Results of the present study support the validity of the helper therapy principle...: in the process of helping others, helpers may also benefit.... At least for some students, the shortest quickest route to the realization of individual satisfaction may be through the psychology of helping.

Similar types of programs were reported by Frazier (1968:9). "Candy Stripers" at some hospitals represent another area in which students can be helpers.

Programs of this type may owe much of their success to three factors. (1) Helping others elicits positive feelings about oneself. (2) A great deal of dialogue takes place between the helper and the teacher (an adult). Dialogue of this nature is often deficient in the background of most disadvantaged students. (3) The helper comes to see himself in a new and improved role.

Evaluation. Finally, evaluation is an important element. Evaluation can enable mid-course corrections to continuing projects and can provide useful information about completed projects. It sets the stage for meaningful follow-on projects. Too often, as pointed out by Hoepfner and Fink (1975:ix) in a report on preschool programs, evaluation is given low priority and is initiated too late.

> So little is known about how best to educate young children that the evaluation of programs designed for their education is a project in sleuthing. Unfortunately, the sleuths usually are more preoccupied with telling how the tale ended than with leaving behind a record of the trail leading to their conclusions....
>
> Of necessity, not by choice, the evaluators were confronted with the formidable task of reconstructing, to the degree possible, events which already had occurred. How much better it would have been had they been able to observe them as they took place! For reasons which can be described only by such words as 'oversight' 'shortsightedness' or even 'hindsight'--and which, consequently, are not reasons at all--those who feel some responsibility for determining the success of publicly-funded education projects reveal an almost unerring proclivity toward post-hoc evaluations. One result is that ongoing projects fail to benefit from the potentially corrective feedback of formative evaluation. Another is that sleuths ultimately brought in must engage in extraordinarily difficult pieces of detective work.

Mackay (1975:70) in commenting on the EOF Project in his evaluation report stated:

> ...As part of a systematic model for improving the quality of education it [the EOF Elementary program] was, in our opinion, deficient in several important respects.... It was not embedded in a short or long range planning model aimed at improving quality.... The lack of evaluative skill and evaluative evidence provides little hope for long-term payoff in terms of future shifts in the direction of elementary schooling in Alberta.

Summary

Educational programs can be designed and delivered in a variety of ways. Some are more effective and efficient than others. The following points can be established on the basis of the literature cited in this section.

1. There is evidence to suggest that regular classrooms are more effective in improving achievement in basic skills than segregated classrooms and are as effective as most resource rooms.

2. Integrated classrooms minimize ego-damaging labeling which in turn may help the disadvantaged student establish a more positive self-image.

3. Of all the variables that affect achievement, teacher quality appears to have greatest significance. Another significant variable appears to be the attitudes and aspirations of the disadvantaged students' peers. Structured programs appears to be a third variable.

4. All programs for disadvantaged students must be prepared so that they are perceived to be meaningful.

5. Disadvantaged students need individualized instruction--at least in terms of rate of progress and perhaps with respect to objectives, format of media used and learning style preferences.

6. Technology may be able to make individualized instructions manageable for classroom teachers as well as deliver highly successful instruction in basic subjects--technology may both support the teacher and provide direct instruction.

7. Little evidence was found in this review revealing positive effects from approaches to personal counselling. An alternative is to establish stimulating, warm and friendly classroom situations. Extensive personal counselling should generally be referred to resources outside the school.

8. Disadvantaged students may benefit from programs designed to use them in a helping role with younger children or on projects in the community.

9. Disadvantaged students have many problems. Interagency planning, which includes parents, may prove most effective.

10. Many programs fall short of their full potential because of insufficient planning and evaluation.

CONCLUSIONS

Disadvantaged students, or potential dropouts, are to be found in most classrooms. The disadvantages stem from many sources but the results are usually the same: they produce poor self-images, they lead to pessimism, they provide no sense of purpose, and they provide no positive motivation.

The disadvantaged student can be readily identified: he tends to be over-age for his grade; he believes he is a failure; he feels rejected and alienated; he misses a good deal of school because of illness; he is behind in most basic subjects; and by the time he reaches adolescence, he is marking time and waiting to drop out of school.

Since the early 1960's, much attention and many resources have been devoted to resolving the problems of disadvantaged students. While results have varied, there is a body of evidence building about what does, or does not, work. There is also evidence building up which indicates that investments in education of disadvantaged students have a high return ratio. There is also evidence that suggests that basic needs (shelter, food, health) must be met before learning can take place, hence the need for inter-agency and non-school agency involvement.

Several alternative ways of implementing programs for disadvantaged students are available. The generally preferred method remains the regular classroom--the integrated approach where the disadvantaged student is integrated into the larger social structure of the school. Labeling of students is minimized and regular class teachers, who are responsible for maintaining the results of remedial programs throughout, are provided with assistance and equipped with enhanced competence and confidence.

The successful integration of disadvantaged students into regular classrooms requires: superior teachers; new and meaningful programs; individualization of instruction; and some new strategies for building egos and enhancing self-images. Technology may be able to provide direct instruction in selected basic or core subjects and support to the teacher in managing individualized programs.

Resource rooms as a means of remediating disadvantaged students have proven to be of little effect. Initial gains (even impressive ones) are often lost after students return to regular classrooms. A preferred alternative might be to use resource rooms for short-term remediation and re-deploy some resources directly into the regular classrooms and in support of the regular teachers. The long-term benefits from remediation will likely be directly related to how well regular class teachers differentiate instruction to accommodate the disadvantaged learner. Accordingly, additional assistance to the

regular class teacher seems warranted. As indicated above this could include frequent diagnosis and follow-up evaluations of progress, program planning, program materials and teaching sequences, technological aids for instruction and recordkeeping, and consultation with non-school agencies.

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